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PATENT (5681-67300/P9675)

### IN LEHRAGENITED STATES PATENT AND TRADEMARK OFFICE

<b>Applicat</b>	ion No.:	10/696,891
Filed:	October 30	0, 2003

Inventor(s):

Robert E. Cypher

Title: ECC FOR COMPONENT FAILURES USING GALOIS FIELDS

Examiner: Unknown
Group/Art Unit: 2131

Atty. Dkt. No: 5681-67300

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date indicated below.

Lawrence J. Merkel

Name of Registered Representative

April 21, 2006

## **INFORMATION DISCLOSURE STATEMENT**

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Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir

Sir:		
	Applio	cant requests consideration of \infty the references listed on the attached Form PTO-
1449	and/or [	the additional information identified below in paragraph 3.
		A copy of each required reference listed on the Form PTO-1449 is enclosed.
		The references listed on the Form PTO-1449 were previously cited in application serial no to which the captioned application is seeking priority under 35 U.S.C. §120; therefore, a copy of each reference is not enclosed.
		The present application is a U.S. national patent application filed after June 30, 2003, or an international application that entered the national stage under 35 USC § 371 after June 30, 2003. Therefore, copies of the cited U.S. patents and/or U.S. patent application publications are not enclosed.
1.	This I	nformation Disclosure Statement is submitted:
	a.	within 3 months of the filing date of a national application other than a continued prosecution application under § 1.53(d);

		within 3 months of the date of entry of the national s 1.491 in an International application; before the mailing date of a first Office Action on the before the mailing of a first Office Action after the f	e merits; or	
	b.	continued examination under § 1.114.  after the events of above paragraph 1a and prior to a final Office Action or Notice of Allowance, a certification of paragraph 2 below is provided, or enclosed.	and thus:	
	c.	after the mailing date of a final Office Action or a land prior to payment of the issue fee, and thus: paragraph 2 below is provided and a fee of \$180.00 i	the certification of	
2.	2. It is hereby certified:			
		that each item of information contained in this Information I was cited in a communication from a foreign patent off application and that this communication was not received designated in § 1.56(c) more than thirty (30) days prior information disclosure statement;	ice in a counterpart d by any individual	
·		that each item of information contained in this Information I was cited in a communication from a foreign patent off foreign application not more than three (3) months prior Statement; or	ice in a counterpart	
		that no item of information contained in the Information I was cited in a communication from a foreign patent off foreign application or, to the knowledge of the person sign after making reasonable inquiry, was known to any individuals (c) more than three (3) months prior to the filing of the States.	ice in a counterpart ning the certification dual designated in §	
3.		Consideration of the following additional information (incluor abandoned U.S. applications, prior uses and/or sales, etc.)		
4.	For eac	non-English language reference listed on the attached Form	PTO-1449:	
		reference is made to an English language translation submitte	ed herewith, and/or	
		reference is made to a foreign patent office search replanguage) submitted herewith, and/or	ort (in the English	
		reference is made to an English language translation of a search report submitted herewith, and/or	foreign patent office	
		reference is made to the concise explanation contained in the present application at page(s), and/or	e specification of the	
		reference is made to the concise explanation set forth below:		

#### Application Serial No. 10/696,891 - Filed October 30, 2003

5.	Applicant also offers the following comments for the Examiner's consideration:
6.	Also enclosed is a copy of a foreign search report citing these references.
7.	The listed documents were brought to the attention of the Applicant(s) after payment of the issue fee in the captioned case. The documents were cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. Applicant(s) request this Information Disclosure Statement and attached Form PTO-1449 be placed in the file of the captioned application.
8.	Applicant(s) requests that the Information Disclosure Statement and attached Form PTO-1449 and references, which are being filed before the grant of the patent and pursuant to 37 C.F.R. § 1.97(i), be placed in the file of the captioned application.

If any required fees are missing, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert & Goetzel, P.C. Deposit Account No. 501505/5681-67300/LJM.

Respectfully submitted,

Lawrence J. Merkel Reg. No. 41,191

Actorney for Applicant(s)

MEYERTONS, HOOD, KIVLIN, KOWERT & GOETZEL, P.C. P. O. Box 398 Austin, Texas 78767 (512) 853-8800

Date: April 21, 2006

# Form PTO-1449 (modified)

List of Patents and Publications For Applicant's Information Disclosure Statement 27 2006
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ATTY. DKT. NO. 5681-67300

APPLICANT: Robert E. Cypher

FILING DATE: October 30, 2003

SERIAL NO. 10/696,891

GROUP: 2131

### S.S. PATENT DOCUMENTS

EXAM. INITIALS	REF. DES.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
		2004/0054956	3/18/04	James Byrd		1 Mary	
· · · · · · · · · · · · · · · · · · ·		5,303,302	4/94	Michael Burrows			
		5,177,747	1/93	Capps, et al.			
		5,537,421	7/96	Dujari, et al.			
		5,606,662	2/97	Michael T. Wisor			
		6,779,150	8/04	Walton, et al.			
		6,766,493	7/20/04	Hoffman, et al.			
# <del></del>		6,738,947	5/18/04	Maeda			
		6,704,838	3/9/04	Anderson			
		6,374,383	4/16/02	Weng			·
		4,433,388	2/21/84	Oosterbaan			
		5,020,060	5/28/91	Murai, et al.			
		4,949,342	8/90	Shimbo, et al.			
						•	
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EXAMINER
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### DATE CONSIDERED:

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the patent owner.

#### SERIAL NO. 10/696,891 Form PTO-1449 (modified) ATTY. DKT. NO. 5681-67300 List of Patents and Publications (Use several sheets if necessary) (Use s GROUP: 2131 APPLICANT: Robert E. Cypher For Applicant's Information FILING DATE: October 30, 2003 78 TRADEE'S. PATENT DOCUMENTS **CLASS SUB** FILING DATE IF REF. DOCUMENT NUMBER DATE NAME EXAM. APPROPRIATE **CLASS INITIALS** DES. OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.) J. Zweig, et al., "TCP Alternate Checksum Options," March 1990, 5 pages. F1 Craig Partridge, et al., "Performance of Checksums and CRCs over Real Data," 1995 ACM, pp. 68-76. F2 Jonathan Stone, et al., "Performance of Checksums and CRC's over Real Data, 1998 IEEE, ACM Transaction F3 on Networking, Vol. 6, No. 5, pp. 529-543. Anh Vu, "Error Detection and Error Correction," October 27, 1997, 7 pages. F4 Anastase Nakassis, "Fletcher's Error Detection Algorithm: How to Implement it Efficiently and How to Avoid F5 the Most Common Pitfalls," ACM SIGCOMM Computer Communication Review, Vol. 18, Issue 5, October 1998, pp. 63-88 Anarchriz, "CRC and How to Reverse it: A CRC Tutorial & The c001 Way to Reverse CRC," April 1999, 14 F6 F7 "Cyclic Redundancy Check," August 2, 1997, 1 pages. Eric Smith, "Memory Error Detection and Correction: An Introduction to Parity and ECC," 8/23/96, 2 pages. F8 Timothy Hsu, "How to Select System Memory," January 9, 1999, 13 pages. F9 "Memory Tutorial," 1998, 3 pages F10 Satran, Sheinwald Informational, "iSCSI CRC Considerations," May 7, 2001, 18 pages. F11 "A Short Spiel on 1-Bit Error Correction Codes," printed 8/11/01, 2 pages. F12 Rick Kelly, "Error Management Using DesignWare CRC and ECC," 2001 Synopsys, Inc., 5 pages. F13 ZDNet UK, "Parity RAM and ECC," PC Magazine Guide to Servers, 1999, 1 page. F14 F15 "Before you start - Chapter 6: Break and Verify," © Laurence Soucy 1997/2001, 1 page. "A Painless Guide to CRC Error Dection Algorithms," Version 3.00, 9/24/96, 19 pages. F16

### **EXAMINER:**

F17

pages. 100-123.

#### DATE CONSIDERED:

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the patent owner.

"Error Control Systems for Digital Communication and Storage," Stephen B. Wicker, Prentice Hall 1995,